

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

1. Applicant/Contact name and address: Sweet Grass County Conservation District  
for Golden Eagle Ranch  
PO Box 749  
Big Timber, MT 59011
2. Type of action: Application To Change A Water Right No. 43B 30030765
3. Water source name: Unnamed Tributary to the Yellowstone River
4. Location affected by project: NW ¼ Section 19, T1S, R17E; Sweet Grass County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The applicant proposes to add two points of diversion and a place of use to the Sweet Grass County Conservation District Water Reservation for sprinkler irrigation. These additional points of diversion and the place of use were not listed on the original reservation application. The proposed points of diversion will be located in the NE SW NW NW and the SW SW NW NW both in Sec. 19 T1S R17E. A portable pump will be used interchangeably at either point of diversion to pump at a maximum flow rate of 374 gallons per minute (gpm) from 4/1 to 10/15. The maximum volume to be used for this change will be up to 127.5 acre-feet (AF) per year. The place of use, as applied for, will be 47.4 acres located in the NW quarter Sec. 19 T1S R17E.

The applicant says that authorization of this change will allow the Sweet Grass Conservation District to fulfill the obligation of their reservation, which is to provide future irrigation development. They state that the use of this water for irrigation is in line with the Conservation District development plan.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)

MT Fish, Wildlife & Parks - Montana Fisheries Information System  
MT Dept. of Environmental Quality Website - TMDL 303d listing  
MT National Heritage Program Website - Species of Concern  
USDI Fish & Wildlife Service Website - Endangered and Threatened Species Meagher County, MT

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

*Determination:* Minor Impact

The MT Department of Fish, Wildlife and Parks (MT DFWP) identify the Yellowstone River as periodically dewatered from River Mile 293.9 to River Mile 473.5. This application proposes to take 127.5 AF of water from an unnamed tributary that would contribute to Yellowstone River flows within the reach described above; there could be a minor impact to the river in drought or water-short years. The MT DFWP has instream flow rights (Murphy Rights) on the Yellowstone River for between 1300 CFS and 2200 CFS depending on the month of the year.

**Water quality** - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

*Determination:* Low Likelihood of Impact

There is no known water quality assessment for the unnamed tributary of interest. The Yellowstone River, in the stream reach from Reese Creek to Bridger Creek, shows only a partially supporting designation for aquatic life and coldwater fishery beneficial uses. The probable causes of this partial support are listed as alteration in stream-side or littoral vegetative covers and physical substrate habitat alterations. No adverse impacts to water quality are expected as a result of this project.

**Groundwater** - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

*Determination:* Low Likelihood of Impact

Groundwater elevations may slightly increase during the irrigation season in those areas where the additional water is applied.

**DIVERSION WORKS** - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

*Determination:* Minor Impact

The applicant plans to use a 4-inch, 1320-foot long wheel line to sprinkler irrigate 47.4 acres. They use a 3-cylinder Cat diesel engine to power a Berkley pump with a 6-inch outlet. The water is conveyed through 680 feet of 6-inch main line to the wheel line. A hand line will be used to irrigate odd-shaped areas outside wheel line coverage. The applicant states that the engine, pump, and fuel tank are all mounted on a portable trailer. Since a portable trailer will be used to move the pump system between the two requested points of diversion; there could be some localized minor impacts to the vegetation in the riparian areas associated with the establishment of access to the pump sites.

#### **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern,” or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”

*Determination:* Low Likelihood of Impact

The Montana National Heritage Program Website lists 1 bird species as a “Species of Concern” within Township 1 South Range 17 East. The common name for this species is Bald Eagle. The USDI Fish & Wildlife Service shows that Sweet Grass County has 3 species listed as threatened; the Bald Eagle, the Grizzly Bear, and the Canada Lynx. The Black-footed Ferret is listed as endangered while the Gray Wolf is listed as endangered and an experimental non-essential population. The project is largely in place and consistent with other agricultural developments in the area; it is unlikely that any threatened species or species of concern would be further impacted.

***Wetlands*** - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

*Determination:* Low Likelihood of Impact

The USDI Fish & Wildlife Service – Wetlands Online Mapper has no data available for the project location. The subject property has been previously farmed and impacts from access to the pump sites are expected to be minor; there is a low likelihood that wetland resources would be impacted.

***Ponds*** - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

*Determination:* No Impact

A pond is not involved in this project.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

*Determination:*            Low Likelihood of Impact

The soils in this area are generally suited for irrigation. The project area has been farmed in the past and is consistent with other agricultural developments in the area; it's unlikely that any unnatural degradation of soil characteristics would occur.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

*Determination:*            Minor Impact

Other than some possible localized disturbance when accessing the pump sites; little displacement of vegetative cover is expected. Normal weed management practices can be employed to control noxious weeds in the area - it is the responsibility of the owner to control noxious weeds on their property.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

*Determination:*            Low Likelihood of Impact

There is a low likelihood of impacts to air quality; the project will have no emissions other than the small diesel engine used to power the pump.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

*Determination:*            Low Likelihood of Impact

Since the project is largely complete, and the place of use has been previously farmed; it is unlikely that any cultural resources would be further impacted by this project. The State Historic Preservation Office says that as long as there will be no disturbance or alteration of structures over 50 years of age; there is a low likelihood cultural properties will be impacted.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination:*            Low Likelihood of Impact

No other impacts have been identified.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination:* Low Likelihood of Impact

The Sweet Grass Conservation District says that the use of this water for irrigation purposes is in line with the Conservation District development plan, however no plan was submitted.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

*Determination:* Low Likelihood of Impact

The project is consistent with agricultural development in the area, and should not place additional impacts on access or quality of recreational activities.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination:* Low Likelihood of Impact

No impacts to human health have been identified.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*

Yes\_ **X** \_ No\_\_\_ *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination:* The MT Cadastral Website shows the place of use to be irrigated lies entirely within a conservation easement.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

- (a) Cultural uniqueness and diversity? No
- (b) Local and state tax base and tax revenues? No
- (c) Existing land uses? No
- (d) Quantity and distribution of employment? No
- (e) Distribution and density of population and housing? No

- (f) Demands for government services? No
- (g) Industrial and commercial activity? No
- (h) Utilities? No
- (i) Transportation? No
- (j) Safety? No
- (k) Other appropriate social and economic circumstances? No

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts:

No secondary impacts anticipated.

Cumulative Impacts:

This water reservation change will divert water from an Unnamed Tributary of the Yellowstone River. The reach of the Yellowstone that this tributary would supply has been designated as periodically dewatered by the MT DFWP. Though this water right is minimal in terms of the Yellowstone Rivers' historic discharge rates; any depletion to this reach of the Yellowstone River will contribute to the existing periodically dewatered condition.

**3. *Describe any mitigation/stipulation measures:***

No mitigation or stipulation measures have been identified. A measurement condition will be placed on the water right as required by the reservation final order.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

No action alternative. The acreage would still be irrigated from Bridger Creek and the applicant would experience the same water availability and low production issues they have had in the past.

**PART III. Conclusion**

- 1. *Preferred Alternative:*** Project as proposed.
- 2. *Comments and Responses:*** No comments have been received.

**3. Finding:**

Yes\_\_\_ No X Based on the significance criteria evaluated in this EA, is an EIS required?

*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:*

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

*Name of person(s) responsible for preparation of EA:*

*Name:* Douglas D. Mann

*Title:* Water Resources Specialist

*Date:* Aug 12, 2007